

Exhibit 34

Deposition of Hal J. Singer, Ph.D.
(September 27, 2017) (excerpted)

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEVADA

- - -

IN RE: : Civil Action
: DOCKET NO.
CUNG LE, NATHAN QUARRY, : 2:15-cv-01045-RFB-
JON FITCH, BRANDON VERA, : (PAL)
LUIS JAVIER VAZQUEZ and :
KYLE KINGSBURG, on behalf : CLASS ACTION
of themselves and all :
others similarly :
situated, :
:
Plaintiffs, :
:
v. :
:
ZUFFA, LLC, d/b/a :
ULTIMATE FIGHTING :
CHAMPIONSHIP and UFC, :
:
Defendants. :

- - -

Wednesday, September 27, 2017

- - -

Videotaped deposition of
HAL J. SINGER, Ph.D., taken pursuant to
notice, was held at the law offices of
Berger & Montague, P.C., 1622 Locust
Street, Philadelphia, Pennsylvania 19103,
beginning at 9:24 AM, on the above date,
before Constance S. Kent, a Certified
Court Reporter, Registered Professional
Reporter, Certified LiveNote Reporter, and
Notary Public in and for the Commonwealth
of Pennsylvania.

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1 arrangement.

2 So by construction, if I --
3 if I assume in a but-for world
4 these restraints are removed, then
5 the foreclosure falls. I don't
6 need an econometric proof of that.
7 It -- it just follows from
8 elementary logic.

9 BY MR. ISAACSON:

10 Q. Right. Well, for example,
11 when we looked at Figure 3, you told me
12 things you thought were important, but
13 you didn't have any sort of mathematical
14 analysis to say, here's a clause that
15 relates to a specific foreclosure
16 percentage; is that right?

17 A. That is correct. I think --
18 I did not perform an inquiry as to the
19 causes or drivers historically of a
20 foreclosure share. One could do that.
21 It sounds like there would be another
22 econometric exercise. But the
23 foreclosure share, as I've measured it,
24 is what it is, and it's an explanatory

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1 variable model.

2 Q. Okay. Let's go to paragraph
3 1 of your report.

4 A. Paragraph 1?

5 Q. Yes. Page -- somehow that's
6 page 4 and 5.

7 A. Got it.

8 Q. I'm sorry, paragraph 2.

9 A. Oh, paragraph 2.

10 Q. You see in the middle
11 there's the definition of challenged
12 conduct?

13 "Plaintiffs allege that
14 these actions taken together, the
15 'challenged conduct.'"

16 A. Yes.

17 Q. Okay. And the -- and in
18 paragraph 2 you list three things.

19 "1, Zuffa" -- Zuffa's
20 alleged to have, 1, eliminated potential
21 rival MMA promoters through horizontal
22 acquisitions; 2, deprived potential
23 rivals of key inputs, the fighters
24 themselves, by entering" -- "entering

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1 into allegedly exclusionary contracts
2 with the vast majority of top fighters,
3 and 3, taken other steps to use its
4 alleged dominance to impair potential
5 rivals."

6 And then you've also.
7 Footnoting in footnote 2, the complaint.
8 Though that's -- I'm not clear on whether
9 that's not a footnote to the challenged
10 conduct.

11 MR. CRAMER: No, that's a
12 footnote to the sentence at the
13 top of the page.

14 MR. ISAACSON: Right.
15 BY MR. ISAACSON:

16 Q. So is the challenged conduct
17 a subset of the allegations in the
18 complaint?

19 MR. CRAMER: Objection to
20 form. Foundation.

21 THE WITNESS: I don't think
22 so. I think that when I lay out
23 my understanding of the challenged
24 conduct, I try to -- I try to

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1 trace the conduct that's being
2 challenged in the complaint.

3 BY MR. ISAACSON:

4 Q. Okay. And I'm -- we're
5 going to focus on taken other steps to
6 use its alleged dominance to impair
7 potential rivals, because perhaps you'll
8 agree with me that that lacks
9 specificity, but that's okay for an
10 introduction.

11 A. Exactly.

12 Q. Right, right, right.

13 A. It's made very explicit
14 later on in the draft.

15 Q. And then footnoting to
16 that --

17 A. In the report, sorry.

18 Q. -- at the end of that
19 sentence, it's to part VII A. If I
20 wanted to understand the complete
21 challenged conduct, is that where I would
22 look to?

23 A. I don't think so. Let me
24 look at part 7A. That could be a typo.

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1 Q. It even gets confusing, your
2 Table of Contents doesn't have a 7A.

3 A. Right. So let me --

4 MR. CRAMER: I think it
5 means 2.

6 THE WITNESS: Yeah.

7 MR. ISAACSON: 2A?

8 THE WITNESS: Yeah.

9 MR. CRAMER: There's a

10 section of the report called --

11 under Roman II called Nature of
12 the Challenged Conduct.

13 MR. ISAACSON: That would
14 make more sense, yes.

15 THE WITNESS: You want to
16 strike the V there.

17 BY MR. ISAACSON:

18 Q. All right. So II A is the
19 horizontal conduct?

20 A. Yes.

21 Q. And so is that the item 3 in
22 your paragraph 2, the other -- the other
23 conduct, is it the horizontal conduct?

24 A. No.

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1 Q. Okay. Would it be
2 everything in No. II that's -- would
3 your -- would the -- Roman numeral II,
4 would that section capture the challenged
5 conduct?

6 A. Roman II captures the
7 challenged conduct.

8 Q. Okay. Maybe I just got us
9 another errata.

10 The -- now, the esti- --
11 your challenged conduct includes
12 horizontal conduct and vertical conduct.
13 As I understand it, from what you've said
14 today, that you are not estimating injury
15 or damages from the horizontal conduct;
16 is that right?

17 A. I think I'm not -- I'm not
18 estimating any -- any impact or damages
19 that flow entirely through the
20 horizontal. What -- what's important and
21 what drives the damages and the impact in
22 my models are the vertical restraints.
23 They're doing the -- that is the
24 mechanism of harm that I'm capturing,

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1 that I'm measuring.

2 Q. All right. The -- you are
3 measuring an increase in foreclosure due
4 to the acquisition of rivals by Zuffa; is
5 that right?

6 MR. CRAMER: Asked and
7 answered, form.

8 THE WITNESS: Conditional on
9 Zuffa using exclusive contracts of
10 a sufficient duration, then yes,
11 bringing on more fighters and
12 funneling them through that
13 mechanism is causing foreclosure
14 to go up.

15 In contrast, if Zuffa were
16 not using exclusive contracts of a
17 sufficient duration and made a
18 horizontal acquisition, then by my
19 regression model, at least, there
20 would be no increase in
21 foreclosure share and there would
22 be no anticompetitive effects.

23 In other words, the vertical
24 restrictions on fighter mobility

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1 are doing -- is the only necessary
2 condition, it is doing all the --
3 all the lifting, if you will,
4 according to my model.

5 BY MR. ISAACSON:

[REDACTED]

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10 BY MR. ISAACSON:

11 Q. Fine. You discuss
12 counter-programming in your report. I
13 can refer you to that, but if you're
14 general familiar with the topic.

15 A. Yes.

16 Q. All right. You are -- am I
17 correct that you are not attributing any
18 increase in foreclosure percentage to
19 counter-programming or would you know?

20 A. I'll give you the same
21 answer I just gave you for the
22 acquisitions. If you strip away the
23 restrictions on the fighter mobility, the
24 exclusive long-term contracts, then the

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1 presence of the counter-programming would
2 not engender higher foreclosure shares
3 according to my model, would not generate
4 the wage effects that -- that my model is
5 showing.

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Q. In general, we'll save time if you tell me whether you have opinions as opposed to what you imagine.

A. Okay.

Q. Or could imagine. I don't mean that as a criticism, I mean that as constructive.

MR. CRAMER: Constructive criticism.

MR. ISAACSON: No, not even that. A constructive way to get through the day.

MR. CRAMER: Advice.

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1 with respect to, say, a finding of
2 monopsony power in the input
3 market.

4 BY MR. ISAACSON:

5 Q. Well, you do have findings
6 of monopsony power that do rely on
7 revenue weighting, right?

8 A. I think that under the --
9 under the indirect approach and under
10 only one pass through the indirect
11 approach, I weight fighters by -- by
12 revenues to make an inference about
13 Zuffa's high shares in that relevant
14 input market.

15 Q. Right.

16 A. But as you know, that's only
17 one of many, many approaches that allow
18 me to get to the conclusion of monopsony
19 power.

20 Q. Okay.

21 A. I actually prefer --

22 Q. So let's return --

23 A. Can I finish?

24 Q. I thought you were.

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1 A. I prefer direct evidence
2 generally, and I think that I've -- I
3 offer a slew of evidence that speaks to
4 how you can prove directly that Zuffa
5 exercises monopsony power.

6 Q. I understand that you
7 offered direct and indirect evidence, but
8 I need to ask about them one at a time
9 and we can cover both.

10 A. Okay.

11 Q. So in terms of when you
12 define a market, can you describe to me a
13 situation where if you use revenue
14 weighting in the input market, where
15 the -- a monopoly firm would not
16 necessarily have a monopoly in the input
17 market?

18 MR. CRAMER: Incomplete
19 hypothetical, form.

20 THE WITNESS: I've never
21 given thought to that, and I'd
22 like to think about it and maybe
23 we'll come back. But I don't
24 think I'm prepared to -- to

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1 construct a scenario about how
2 that could occur.

3 BY MR. ISAACSON:

4 Q. All right. The -- and then
5 you've described geographic market for
6 the output market also. And is that also
7 North America?

8 A. Yes.

9 Q. All right. The -- and in
10 terms of your SSNIP analysis -- all
11 right. So did you do -- well, my
12 colleague wants to know so it seems like
13 a good question.

14 A. I'm sure it is.

15 Q. In the out -- in the output
16 market, what is being sold? In the
17 output markets that you have defined.

18 A. Sure. I think that you
19 are -- the production or the product that
20 is being produced are -- is live MMA
21 events and the revenue associated with
22 those events can take the form of gate
23 revenue or pay-per-view. That's from --
24 from the consumer side. Of course,

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1 there's -- there's revenues from the
2 advertiser's side as well.

3 But I hope that answers your
4 question.

5 Q. All right. And does
6 pay-per-view compete with broadcast?

7 MR. CRAMER: Objection to
8 form.

9 THE WITNESS: I did not
10 conduct that inquiry.

11 BY MR. ISAACSON:

12 Q. Do you have an opinion one
13 way or another about that?

14 A. No.

15 Q. All right. With respect to
16 the -- does -- do the live venue events
17 compete with pay-per-view events?

18 A. I don't even understand the
19 question. Many of the pay-per-view
20 events are live.

21 Q. Meaning I watch it on
22 pay-per-view as opposed to go see it
23 live.

24 A. I haven't -- I haven't

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1 studied that and I imagine for someone
2 who lives very far from the venue where
3 the live event is staged, they would not
4 be considered reasonably close
5 substitutes.

6 Q. So for your input markets,
7 what evidence did you take into account
8 to assess customer's likely response to
9 price increase in the SSNIP analysis?
10 And feel free to point me to the sections
11 of your report that --

12 A. Did you mean to say -- I
13 think you just conflated the input
14 markets and customers. Maybe we should
15 start over.

16 Q. Yes, I said price increase
17 rather than wage decrease, but let me
18 just put it this way: What evidence in
19 your report did you take into account to
20 assess the likely response to a SSNIP in
21 the input markets?

22 A. Sure. So there it's the
23 perspective of the fighters not the
24 customers. So I was tripping up over

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1 your --

2 Q. Yes.

3 A. -- injecting customers when
4 we're talking about input markets.

5 So I can take you to the
6 relevant sections, and I will, but of
7 course at high levels, I'm looking at
8 record evidence of -- of what fighters
9 and promoters thought about substitution
10 possibilities as you -- if you were to
11 move away from Zuffa to counteract a
12 hypothetical wage cut.

13 Q. Okay. So the first thing
14 you looked at was record evidence of
15 substitution.

16 A. Or the perception of
17 substitution from the stakeholders, the
18 fighters, the promoters, and I'll just
19 point you, if you --

20 Q. That's -- that's sufficient
21 for -- for item 1.

22 MR. CRAMER: You asked him
23 to look at his report.

24 MR. ISAACSON: I'm going

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1 to --

2 MR. CRAMER: Okay.

3 MR. ISAACSON: I'm not going
4 to ask him to recite all the
5 documentary evidence.

6 BY MR. ISAACSON:

7 Q. And I understand that
8 there's documentary evidence that you're
9 not reciting today.

10 Okay. Other than the record
11 evidence of the -- about sub- --
12 perceptions of substitutability from the
13 stakeholders, what would be other parts
14 of your SSNIP analysis for the input
15 market?

16 A. I would direct you to
17 Section 3A 1 for all of the evidence that
18 I used to inform the construction of the
19 relevant input market.

20 Q. That would be the record
21 evidence that you were referring to?

22 A. Well, record evidence is
23 fairly broad, right, because it
24 encompasses almost everything. But I

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1 will point -- to me the -- what helps to
2 guide me to the findings that I made with
3 respect to the input market was the fact
4 that Zuffa was able to successfully
5 suppress fighter wages, wages either
6 measured by -- by wage share, regression
7 or by knowledge of the fact that wage
8 shares were falling over time from
9 26 percent to 18 percent, yet Zuffa did
10 not suffer sufficient defection so as to
11 render that wage decrease unprofitable.

12 Now, that -- that tells you,
13 as a matter of economics, that a -- that
14 a reasonable starting place for defining
15 the contours of the relevant input market
16 is just the fighters under Zuffa's
17 control. That was the -- the first thing
18 that occurred to me.

19 And once you -- once you
20 start there, you can start looking at
21 record evidence to determine whether
22 additional fighters from -- from rival
23 promotions ought to be included so that
24 you eventually get to the smallest set of

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fighters such that a hypothetical monopsonist could profitably exercise monopsony power.

Q. All right. And you said that Zuffa was able to successfully suppress fighter wages -- wage share. You were talking only about the share of revenues there, correct?

A. Correct.

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BY MR. ISAACSON:

Q. So my actual question was -- I understand you're focused on that, but my question is, did you look at whether Zuffa actually suppressed actual wages?

A. Without controlling for revenues, no. Because it's incorrect to do so.

Q. So in performing your SSNIP analysis for the input markets, is it fair to say that you relied on the record evidence about the issue of perceived substitution from the stakeholders along with your observations that when Zuffa suppressed fighter wage shares, there weren't significant defections?

A. I think -- I think that encompasses a lot. I also think that Zuffa in its ordinary course of business made use of a FightMetrics (sic) database. I had -- the very first thing I did when I -- when I got this case was I started reading the economic literature on the MMA industry, and almost every

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BY MR. ISAACSON:

Q. All right. But in your -- in your hypothetical there you held revenues constant. Did you look at, as part of your analysis of the input market and defining that market, as to whether Zuffa actually suppressed actual wages?

MR. CRAMER: Objection to form.

BY MR. ISAACSON:

Q. As opposed to wage share?

MR. CRAMER: Same objection.

THE WITNESS: I'm focused on wage share, of course, because it's the right thing to look at from an economic perspective. We're trying to measure exploitation, and the textbooks tell you to do it as a share of marginal revenue product.

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article I read, the FightMetrics (sic) database formed the foundation of their empirical analysis.

So I thought that that was a reasonable place to begin to posit what the smallest set of fighters that could be under the control of a hypothetical monopsony would be in order for it to exercise market power.

Q. All right. Why did you use the smallest set of fighters not the smallest amount of promoters?

A. Well, because we're looking at the input market. The fighters form the elements of the input market. They happen to belong to promoters, but fighters are the elements or the ingredients.

But I'm -- if I'm a fighter -- just to make it clear, if I'm a fighter and I'm thinking about substituting, defecting from UFC and going to a rival promotion, I don't care what the name of the promotion is or

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1 who's running it or who the chief
2 matchmaker is, I want to make sure that
3 I'm going to be put inside of a pool
4 of -- of fighters such that I have a
5 prospect of elevating through the ranks.
6 It's the fighters that determine what a
7 reasonable substitute is when fighters
8 are considering defecting.

9 Q. Now, you're not suggesting
10 that Zuffa used the Fight Matrix data to
11 define a market, are you?

12 A. Well, you just toggled from
13 FightMetrics (sic) to Fight Matrix.

14 Q. I'm sorry, FightMetrics
15 (sic). Sorry. I was bound to do that
16 today.

17 But you're not suggesting
18 that Zuffa used FightMetrics (sic) data
19 to define a market?

20 A. I'm suggesting that firms
21 are not -- are not employed -- firms are
22 not in the businesses of defining
23 relevant product markets as the normal
24 course of business, right? They're doing

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1 something else. Defining markets is the
2 task of an antitrust economist.

3 Q. All right.

4 A. But I do think it's
5 important that Zuffa uses and relies on
6 the FightMetrics (sic) database in its
7 ordinary course of business.

8 Q. All right. And is that part
9 of -- do you consider that -- that
10 observation that Zuffa relies on the
11 FightMetrics (sic) database to be part of
12 your SSNIP analysis?

13 A. I think it undergirds the
14 conclusion that -- that this is the
15 relevant set of fighters that would need
16 to be under the control of a hypothetical
17 monopsonist so that the wage decrease
18 below competitive levels would not be
19 rendered unprofitable.

20 Q. Right. So does your SSNIP
21 analysis for the input markets consist of
22 anything other than the things that
23 you've listed so far: The record
24 evidence of substitution -- of

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1 perceptions of substitutability from
2 stakeholders, your observations about how
3 Zuffa suppressed fighter wage shares
4 without defections or significant
5 defections, and Zuffa's reliance on the
6 FightMetrics (sic) database?

7 MR. CRAMER: Would you like
8 him to look at his report, is that
9 what you're asking?

10 MR. ISAACSON: He can look
11 at his report in answering the
12 questions. I've allowed him to do
13 that for every question.

14 MR. CRAMER: Okay, good.

15 THE WITNESS: By looking at
16 it, it refreshes my memory that in
17 paragraph 101, for example, I'm
18 looking at evidence, again from
19 the perspective of what I call
20 stakeholders, or mostly fighters,
21 as to whether or not some -- some
22 sport outside of MMA would
23 constitute a reasonable substitute
24 to defect to in response to a wage

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1 decrease.

2 And we can go through
3 paragraph-by-paragraph. I don't
4 know if that's how you want me to
5 use the time --

6 BY MR. ISAACSON:

7 Q. I thought -- I thought that
8 as encompassed within the record evidence
9 of perceptions of substitute billing.

10 A. Right. But why -- I mean, I
11 wouldn't say why we go by my memory of
12 what I used, we have the report and we
13 can go paragraph-by-paragraph and I
14 can --

15 Q. Your report is long, I'm
16 trying to see if I can get a summary of
17 your conclusions with you having access
18 to your report.

19 MR. CRAMER: So he wants you
20 to take your time and make sure
21 that you've adequately summarized
22 your conclusions and the evidence
23 upon which they're based.

24 THE WITNESS: Okay.